

CLAIM AMENDMENTS:

Please cancel Claims 2-10, amend Claim 1, and add new Claims 40 and 41, as follows.

1. (Currently Amended) An image pickup apparatus comprising:
a plurality of pixels;
a color filter array of four colors A, B, C and D, disposed on aligned correspondingly to said plurality of pixels,
wherein said color filter array ~~has a color periodicity unit of~~ is arranged in two rows x two columns, such that A and B are adjacent in a row direction, C and D are adjacent in a row direction, A and C are adjacent in a column direction, and B and D are adjacent in a column direction; and
an operation circuit which ~~provides at least two different color difference signals using all the pixels included in the color periodicity unit,~~ derives a first color difference signal by an arithmetic operation of (an output of a pixel corresponding to filter A plus an output of a pixel corresponding to filter B) minus (an output of a pixel corresponding to pixel C plus an output of a pixel corresponding to filter D), and which derives a second difference signal by an arithmetic operation of (output A plus output C) minus (output B plus output D)
~~wherein colors of the color filters in the color periodicity unit of two rows x two columns are all different from each other and have fixed positions.~~

2.-39. (Cancelled)

40. (New) An image pickup apparatus according to Claim 1, wherein the operation circuit derives a luminance signal by an arithmetic operation of output A plus output B plus output C plus output D.

41. (New) An image pickup apparatus according to Claim 1, wherein the four colors of the filters are cyan, magenta, green and yellow.